COMMONWEALTH OF VIRGINIA
Department of Environmental Quality
Piedmont Regional Office

STATEMENT OF LEGAL AND FACTUAL BASIS

Honeywell International, Inc.
P.O. Box 761
Hopewell, Virginia 23860
Permit No. PRO-50232

Title V of the 1990 Clean Air Act Amendments required each state to develop a permit program to ensure that certain facilities have federal Air Pollution Operating Permits, called Title V Operating Permits. As required by 40 CFR Part 70 and 9 VAC 5 Chapter 80, Honeywell International, Inc. has applied for a Title V Operating Permit for its Hopewell, Virginia facility. The Department has reviewed the application and has prepared a draft Title V Operating Permit.

Engineer/Permit Contact: _____ Date:

Air Permit Manager: _____ Date:

Deputy Regional Director: _____ Date:

FACILITY INFORMATION

Permittee
Honeywell International, Inc. – Hopewell Plant
Intersection of Routes 10 and 156
Hopewell, Virginia 23860

Responsible Official
Mr. J.R. Higbie
Plant Manager

Facility
Honeywell International, Inc. - Hopewell Plant
Intersection of Routes 10 and 156
Hopewell, Virginia 23860

Contact Person
Mr. George Weber
Senior Environmental Engineer
804-541-5438

County-Plant ID Number: 670-0026

Facility Description: SIC Code 2869 – The Honeywell Nylon LLC Hopewell facility is located on a 450 acre site between Route 10 and the James River at the east end of Hopewell. The site employs approximately 700 people.

The Hopewell facility includes nine major chemical process areas, a powerhouse, and a marine terminal for transfer of fuel and bulk materials. Caprolactam is the primary product which is sold to internal and external customers.

Co-products include ammonium sulfate, adipic acid, cyclohexanol, cyclohexanone and oxime chemicals. Major raw materials used at the site include phenol, natural gas for the production of ammonia and sulfur for the production of oleum.

COMPLIANCE STATUS

The facility reports that they are currently in compliance with all applicable requirements. This is confirmed by the latest compliance evaluation, dated March 16, 2008, where the facility was judged to be in compliance at the time of the evaluation.

EMISSIONS INVENTORY:

A summary of Honeywell's most recent annual emissions is shown below.

PLANTWIDE EMISSIONS SUMMARY [TONS PER YEAR]	
CRITERIA POLLUTANTS	**2007 ACTUAL EMISSIONS**
Particulate Matter (PM10)	**551**
Nitrogen Oxides (NO2)	**8343**
Sulfur Dioxide (SO2)	**1115**
Carbon Monoxide (CO)	**166**
Volatile Organic Compounds (VOC)	**247**

The permitted capacity of the Honeywell facility is above the major source levels for all criteria pollutants and is subject to Title V permitting requirements.

EMISSION UNIT AND CONTROL DEVICE IDENTIFICATION

Equipment to be operated consists of:

Emission Unit ID	Stack ID	Emission Unit Description	Size/Rated Capacity*	Pollution Control Device (PCD) Description	PCD ID	Pollutant Controlled	Applicable Permit Date
Hazardous Waste Combustor	FU-14	One (1) Trane Thermal Incinerator	40.5 Honeywell chemicals burner units/hr	Adiabatic Quench Tower; Caustic Scrubber; Cloud Chamber Wet	TW-64; TW-48; TW-95,96	PM/HCL PM/HCL PM	September 7, 2007

(HWC)				Scrubber System			
B-8	S-102	Powerhouse Boiler #8; natural gas, landfill gas, #6 oil and Area 6 Co-Product fired	283 MMBtu/hr	N/A	N/A	N/A	May 31, 2004 April 30, 2008
*CAIR/NOx Budget designation for boiler B-8 is 10C							

Note: only the emission units involved in the proposed significant modification are included above.

EMISSION UNIT APPLICABILE REQUIREMENTS:

The statement of basis is to address a significant permit amendment to the Honeywell International, Inc. Title V permit effective January 1, 2007. Since the effective date, there have been several changes/additions to the applicable requirements for this source. This proposed revision to Honeywell's Title V permit will incorporate all of these changes. Some of these changes/additions are considered minor amendments to the TV permit and some are considered significant. In order to consolidate and streamline the permitting process, all of the changes will be incorporated in one permit revision that will be processed as a significant amendment. These changes include:

- Incorporation of the 7/18/2007 and 3/10/2008 minor NSR permits for the caprolactam production areas – minor amendment
- Incorporation of the 9/7/2007 minor NSR permit for the Area 14/Honeywell Chemicals area – minor amendment
- Incorporation of the CAIR requirements for powerhouse boiler #8 – significant amendment
- Incorporation of the 4/30/2008 minor NSR permit for powerhouse boiler #8 – significant amendment
- Revisions to the Subpart EEE monitoring and SSM requirements for FU-14 to facilitate transition between the RCRA and MACT programs and general revisions to Subpart EEE conditions to clarify the applicability and timelines of the requirements – minor amendment

Each of the proposed revisions is discussed in more detail as follows:

<u>7/18/2007 and 3/10/2008 minor NSR permits</u>
The 7/18/2007 minor NSR permit was issued to address modifications to the B-train disulfonate tower in Area 9 and the Kellogg Ammonia Plant (a separate production unit). Due to the projected net emission increase from the propose projects, Article 6 permitting was triggered; however, there were no changes in any permit requirements associated with the issuance of this permit.

The 3/10/2008 minor NSR permit was issued to address the replacement of distillation column CL-63 and the modification of distillation column CL-64 in Area 6. Although the net emission increase from the proposed projects was less than the Article 6 exemption levels, Article 6 permitting was still triggered due to the applicability of NSPS Subpart NNN to the two columns. Conditions #54 and #69 of the 3/10/2008 permit were amended to include NSPS NNN testing and notification requirements for CL-63new (the designation of the replacement unit for CL-63) and the existing emission, throughput and control equipment conditions for CL-63 were revised to apply to CL-63new.

Since the only changes to applicable requirements as a result of these two permit actions were the addition of testing and notification requirements and the revision of existing conditions to apply to a replacement unit, the incorporation of these changes into the TV permit are considered minor permit amendments and no evaluation of compliance assured monitoring (CAM) is required.

<u>9/7/2007 minor NSR permit</u>
The 9/7/2007 minor NSR permit was issued to address the like-for-like replacement of the sulfate stripping column CL-51 in the Honeywell Chemicals process area. Due to the projected net emission increase from the proposed project, Article 6 permitting was triggered. Conditions #3 and #24 of the 9/7/2007 permit were amended to include VOC emission control and notification requirements for CL-51. No other changes were made.

Since the only changes to applicable requirements as a result of this permit action was the revision of existing conditions to apply to a replacement unit, the incorporation of these changes into the TV permit are considered

minor permit amendments and no evaluation of compliance assured monitoring (CAM) is required.

CAIR Requirements for powerhouse boiler #8

Honeywell submitted a Clean Air Interstate Rule (CAIR) application (dated June 29, 2007) to DEQ for powerhouse boiler #8 on July 2, 2008. According to EPA guidance, "……the CAIR portion of the title V permit must be a discrete chapter in the overall title V permit. See 40 CFR 96.120(b), 97.120(b), 96.220(b), 97.220(b), 96.320(b), and 97.320(b). To facilitate this requirement, EPA recommends that the permitting authority simply append the CAIR permit application (which references the CAIR standard requirements) to the title V permit and include language stating that the provisions contained in the CAIR permit application are applicable requirements that are a binding and enforceable portion of the title V permit." Therefore, the source's CAIR application will be included as an attachment to the proposed Title V permit and the following condition included in the body of TV permit.

> 289. The permittee shall comply with all applicable CAIR requirements (9 VAC 5-140-1010 *et seq.*, 9 VAC 5-140-2010 *et seq.*, 9 VAC 5-140-3010 *et seq.*, and 40 CFR Part 96) by the compliance date in the respective Part of 9 VAC 5 Chapter 140. The CAIR application in Attachment A to this document contains specific conditions and expires upon expiration of this Title V permit. (9 VAC 5-80-110 of State Regulations, 40 CFR Part 96 and 9 VAC 5 Chapter 140)

EPA guidance also requires that the incorporation of the CAIR requirements be treated as a reopening and revision of the Title V permit, "…..The provisions of 40 CFR 70.7(f)(1)(i) require that title V permits be reopened and revised when additional applicable requirements apply and there are three or more years remaining on the term of the title V permit. Permitting authorities must follow the same procedures to reopen and issue a revised title V permit as those used to issue an initial title V permit. Note that no such reopening would be required for CAIR sources that have title V permits with less than three years remaining on the title V permit term. In such cases, the CAIR permit would be issued at the same time a title V renewal permit is issued, which of course also requires public notice. See 40 CFR 70.7(a)(1)(ii), 70.7(f)(1)(i) and (f)(2), and 70.7(h)." Because this reopening/revision process must follow the same procedures as an initial TV permit issuance, the incorporation of the CAIR requirements must be processed as a significant permit amendment.

Note that the CAIR application identifies three emission units; 10A, 10B and 10C. These are NOx allowance trading specific reference number designations that Honeywell has assigned to, what was at one time, their three powerhouse boilers. As discussed in the original TV SOB, only one of the powerhouse boilers is still operated by Honeywell. This unit is identified in Honeywell's original TV application, the original TV permit and SOB, the April 30, 2008 minor NSR permit (discussed below) and the proposed TV permit as powerhouse boiler #8 (B-8). The corresponding CAIR designation for this emission unit is 10C. Because of the years designated by the NOx budget trading program and CAIR as the baseline period for the purposes of establishing NOx emission allowances, emission units 10A and 10B still appear in the CAIR application and, by reference, the TV permit even though they are permanently shutdown.

4/30/2008 minor NSR permit

The 4/30/2008 minor NSR permit was issued to address a modification to powerhouse boiler #8's burner nozzles to allow for an increase in landfill gas combustion rate. Due to the projected net emission increase from the proposed project, Article 6 permitting was triggered. The powerhouse boiler #8 has not previously been subject to the NSR program, so each specific condition of the 4/30/2008 permit constitutes a new applicable requirement for the purposes of the Title V permit. Accordingly, Conditions #3-11 of the 4/30/2008 permit were added to the proposed Title V permit as Conditions #290-296, #297, #301 and #305. No additional periodic monitoring requirements were necessary since the 4/30/2008 permit contained sufficient compliance mechanisms to provide a reasonable assurance of compliance with all permit requirements.

Since the addition of these applicable requirements constitute an entire new section of the Title V permit, these changes are considered significant permit amendments and an evaluation of compliance assured monitoring applicability (CAM) is required. However, since powerhouse boiler #8 does not have any air pollution control devices, there is no applicability of compliance assured monitoring (CAM).

Section XIII.H-M – Honeywell Chemicals Area MACT Subpart EEE requirements

At the request of the permittee and in cooperation with DEQ hazardous waste permitting staff, the TV permit is being revised to clarify the source's existing start-up, shutdown and malfunction (SSM) requirements and incorporate three new operating parameter limits (OPLs) for the hazardous waste combustor (FU-14) operated by Honeywell in the Honeywell Chemicals Area. These include a maximum hazardous waste viscosity limit and minimum atomizing steam pressure limits for the two hazardous waste feed injectors. FU-14 is subject to the hazardous waste combustor MACT, Subpart EEE, and the requirements of Subpart EEE were included in Honeywell's initial TV permit. With the issuance of Honeywell's initial TV permit on December 18, 2006, the permittee was officially considered in compliance with the Hazardous Waste Combustor MACT, Subpart EEE, by DEQ's hazardous waste permitting staff. The inclusion of the new SSM and OPL requirements in the Honeywell's TV permit will allow the streamlining of Honeywell's hazardous waste permitting activities under DEQ's hazardous waste permitting programs. A recordkeeping requirement sufficient to implement periodic monitoring for the OPLs was also added. Even though they are not Subpart EEE requirements, the new OPLs have been included in the Subpart EEE section of the TV permit to maintain consistent organization within the permit. These requirements were included in Conditions #340 and #353.l as shown below. The changes to the SSM requirements include the addition of sub-paragraph (e) to Condition #342 and the addition of Condition #343 (also shown below). Condition #342.e was added to the TV permit based upon Honeywell's request to DEQ-Hazardous Waste staff to eliminate the SSM requirements of their existing RCRA permit. At 40 CFR 63.1206(c)(2)(ii), Subpart EEE requires that the SSM Plan include requirements of sub-paragraph (e) in such circumstances. 40 CFR 63.1206(c)(2)(ii) also addresses requirements for revisions of the source's SSM Plan, so Condition #343 was added to the permit to address this requirement.

340. **Operating Parameter Limits and CMS** – The permittee shall operate the hazardous waste incinerator (FU-14) in accordance with the operating parameters listed below.

Maximum Liquid Hazardous Waste Viscosity	20 centipoise at 60 degrees F
Minimum organic non-acidic waste injector operational steam pressure	30 psig
Minimum aqueous acidic waste injector operational steam pressure	30 psig

Compliance with the viscosity operating parameter shall be determined as described in the Feedstream Analysis Plan required by Condition #348. The permittee shall install, maintain and operate operational steam pressure gauges on each hazardous waste injection system. The permittee shall conduct field checks of these pressure gauges at least once every two hours. If any field inspection indicates a pressure below 30 psig, the facility shall perform immediate corrective action or discontinue firing hazardous waste. The permittee shall record the results of these field inspections as well as any corrective actions taken in the operating record.
(9 VAC 5-80-110)

342. **SSM Plan** - The permittee shall develop and implement a written start-up, shutdown and malfunction (SSM) plan as specified in 40 CFR 63.6(e)(3). This plan shall describe, in detail, procedures for operating and maintaining the hazardous waste incinerator (FU-14) during periods of SSM and a program for corrective action for malfunctioning process and air pollution control equipment used to comply with 40 CFR 63 Subpart EEE.

a. The SSM plan shall identify a projected oxygen correction factor based on normal operations to use during periods of startup and shutdown.
b. The SSM plan shall be recorded in the operating record.
c. The SSM plan shall be revised as necessary in accordance with the "excessive exceedences during malfunctions" requirements of 40 CFR 63.1206(c)(2)(v)(A)(3).
d. The SSM plan shall include any applicable requirements of 40 CFR 63.1206(c)(2)(v)(B).
e. The SSM plan shall include a description of potential causes of malfunctions, including releases from emergency safety vents, that may result in significant releases of hazardous air pollutants and actions the permittee is taking to minimize the frequency and severity of those malfunctions.

(40 CFR 63.6(e)(3), 40 CFR 63.1206(c)(2) and 9 VAC 5-80-110 of State Regulations)

343. **SSM Plan Revisions** - The permittee shall adhere to the requirements specified in 40 CFR 63.1206(c)(2)(ii)(C) for SSMP revisions that may significantly increase emissions of hazardous air pollutants and the requirements of this condition for any other SSMP revisions. In the event of revisions to the SSMP, the permittee shall submit a copy of the revised SSMP to the Director, Piedmont Region for review, and record the date of the submittal and the nature of the revision(s) in a logbook kept permanently onsite. The permittee shall operate FU-14 in accordance with the most recent SSMP iteration (based on the postmark date of the submittal). Based on the results of its review, the Director, Piedmont Region must require appropriate revisions to a startup, shutdown, and malfunction plan or any SSMP revision, if the Director determines that the plan:.

a. Does not address a startup, shutdown, or malfunction event that has occurred;
b. Fails to provide for the operation of the source (including associated air pollution control and monitoring equipment) during a startup, shutdown, or malfunction event in a manner consistent with the general duty to minimize emissions established by paragraph (e)(1)(i) of this section;
c. Does not provide adequate procedures for correcting malfunctioning process and/or air pollution control and monitoring equipment as quickly as practicable; or
d. Includes an event that does not meet the definition of startup, shutdown, or malfunction listed in 40 CFR 63.2.

(40 CFR 63.6(e)(3), 40 CFR 63.1206(c)(2) and 9 VAC 5-80-110 of State Regulations)

353. **On Site Records** - The permittee shall maintain records of emission data and operating parameters as necessary to demonstrate compliance with this permit. The content and format of such records shall be arranged with the Director, Piedmont Region. These records shall be retained in the FU-14 operating record and shall include, but are not limited to:

a. Information required to document and maintain compliance with 40 CFR 63 Subpart EEE, including data recorded by CEMS and CMS and copies of all notifications, reports, plans and other documents submitted in accordance with Subpart EEE;

b. Calculation of the hazardous waste residence time
c. SSM plan;
d. Documentation of any investigations and evaluation of excessive exceedences during malfunctions;
e. Corrective measures for any AWFCO that results in an exceedence of an emission standard or operating parameter limit;
f. Documentation and results of the AWFCO operability testing;
g. Documentation and results of combustion chamber seal inspections;
h. OTC program;
i. Operation and maintenance plan;
j. Feedstream analysis plan; and
k. Documentation of Compliance (DOC) – Unless otherwise specified by the Administrator, by October 14, 2008, the permittee shall develop and include in the FU-14 operating record a DOC. Upon inclusion of the DOC in the operating record, FU-14 shall no longer be subject to compliance with the previously applicable NOC. The DOC shall include the information required by 40 CFR 63.1211(c)(2-3). The permittee shall comply with all emission standards and operating parameter limits specified in the DOC until such time as a new (after the date of the DOC) NOC is submitted in accordance with Condition #351.c.

l. Monitoring and analytical data demonstrating compliance with Condition #340.

These records shall be available for inspection by the DEQ and shall be current for the most recent five years.
(40 CFR 63.1211(b) and VAC 5-80-110 of State Regulations)

Several of the existing Subpart EEE conditions were also revised to reflect and clarify recent revisions to Subpart EEE. Primarily, this included the addition of the phrases “At all times specified by 40 CFR 63 Subpart EEE.” and/or “Unless otherwise specified by the Administrator.” to conditions #334, #335, #339 and #351.b.

Since the changes to applicable requirements as a result of this permit action were the addition of new monitoring and recordkeeping provisions, the clarification of SSMP provisions and the general updating of Subpart EEE provisions, the incorporation of these changes into the TV permit are considered minor permit amendments and no evaluation of compliance assured monitoring (CAM) is required.

STREAMLINED REQUIREMENTS

There are no changes or additions of streamlined requirements associated with this significant amendment.

GENERAL CONDITIONS

There are no changes or additions of general conditions associated with this significant amendment.

STATE ONLY APPLICABLE REQUIREMENTS

There are no changes or additions of state only requirements associated with this significant amendment.

FUTURE APPLICABLE REQUIREMENTS

There are no changes or additions of future applicable requirements associated with this significant amendment.

INAPPLICABLE REQUIREMENTS

There are no changes or additions of inapplicable requirements associated with this significant amendment.

INSIGNIFICANT EMISSION UNITS

There are no changes or additions of insignificant emission units associated with this significant amendment.

CONFIDENTIAL INFORMATION

There are no changes or additions of confidential information associated with this significant amendment.

PUBLIC PARTICIPATION

Since the at least one of the proposed revisions to the TV permit must be processed as a significant permit amendment to the initial TV permit, 9 VAC 5-80-230 requires the public notice procedures of 9 VAC 5-80-270 be followed. Accordingly, a public notice and 30-day public comment period was advertised in the Hopewell News. The comment period commenced on May 30, 2008 and continued through June 28, 2008. No public comments were received. The May 30, 2008 public notice also specified that the proposed permit would also be concurrently reviewed by the U.S. EPA. The 45-day EPA review period commenced on May 30, 2008 and continued through July 13, 2008. No EPA comments were received.